

**ABSTRACT**  
**For**  
**MULTIPLEXING AND DEMULTIPLEXING OF NARROWBAND**  
**AND BROADBAND SERVICES IN A TRANSMISSION**  
**CONNECTION**

The invention relates to the implementation of narrowband and broadband services in a telecommunications network. A splitter element is connected to a transmission link, the splitter element comprising a passive low-pass filter block connected between the transmission link and a first interface, a high-pass filter unit connected between the transmission link and a second interface, and discrete impedance converting means for adapting the first interface to the characteristic impedance of the transmission link. In order that the impedance matching required by the low-pass filter block may be implemented in an economical way yet maintaining the service quality, the impedance converting means are entirely placed between the interface of the low-pass filter block on the transmission link side and the first interface.